

International Science Forum on Computational Toxicology: New Approaches to Environmental Health

Research Triangle Park May, 2007

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY



EPA Science Forum
Partnering to Protect Human Health and the Environment

**Ronald Reagan Building
International Trade Center
Washington, DC**

May 5-7

**Moving Science
Into Action** **Homeland
Security** **Year of
Water**

For more information:
 » Visit the Forum website at <http://www.epa.gov/scienceforum>
 » Or contact fcs-events at (703) 318-4678
 » Or email fcs-events@saic.com

International Science Forum
on
COMPUTATIONAL TOXICOLOGY

MAY 21-23, 2007
U.S. Environmental Protection Agency • Research Triangle Park, NC



Conference Program

- Floor Plan
- List of Steering Committee Members
- Final Agenda
- Presentation Abstracts
- List of Poster Presentations
- List of Exhibitors
- List of Registrants

EPA
United States
Environmental Protection
Agency

Sponsored by the U.S. Environmental Protection Agency

EPA Science Forum

and Ecosystems

2006
Health • Your Environment • Your Future

Join Us!

EPA Science Forum 2006: *Your Health, Your Environment, Your Future*

May 16, 2006 through May 18, 2006
Ronald Reagan Building and International Trade Center
Washington, DC

The Forum will highlight the relationship between our environment and public health, and will include discussions on issues as diverse as the impact of understanding the human genome and the impacts of the built environment. The forum will also highlight the complementary roles of EPA and other Federal public health agencies.

Begun in May of 2002 as a demonstration of EPA's commitment to quality science, the Science Forum has rapidly grown into an EPA tradition. The Science Forum allows scientists, staff members, researchers, communicators, and stakeholders to share ideas, demonstrate their latest research, and explore opportunities to collaborate.

Plenary sessions, poster platform sessions, poster presentations, and a number of exhibits will explore this year's three tracks:

- Disease Susceptibility and the Environment
- Global Challenges
- The Built Environment

The 2006 Forum features the collaborative efforts of the Centers for Disease Control and Prevention (CDC), the Agency for Toxic Substances and Disease Registry (ATSDR), and the National Institute of Environmental Health Sciences (NIEHS)

To learn more about this premier event, and register, please visit:
www.epa.gov/scienceforum



Are you ready for the revolution?

D Butler, Nature Feb 15 2001; 409, 758 - 760

- “small experiments driven by individual investigators will give way to a world in which multi-disciplinary teams....emerge as the key players.....in the era of systems biology in which the ability to create mathematical models describing the function of networks of genes and proteins is just as important as traditional lab skills.”
- “the research teams that will be most successful....are those that switch effortlessly between the lab bench and the suite of sophisticated computational tools.”





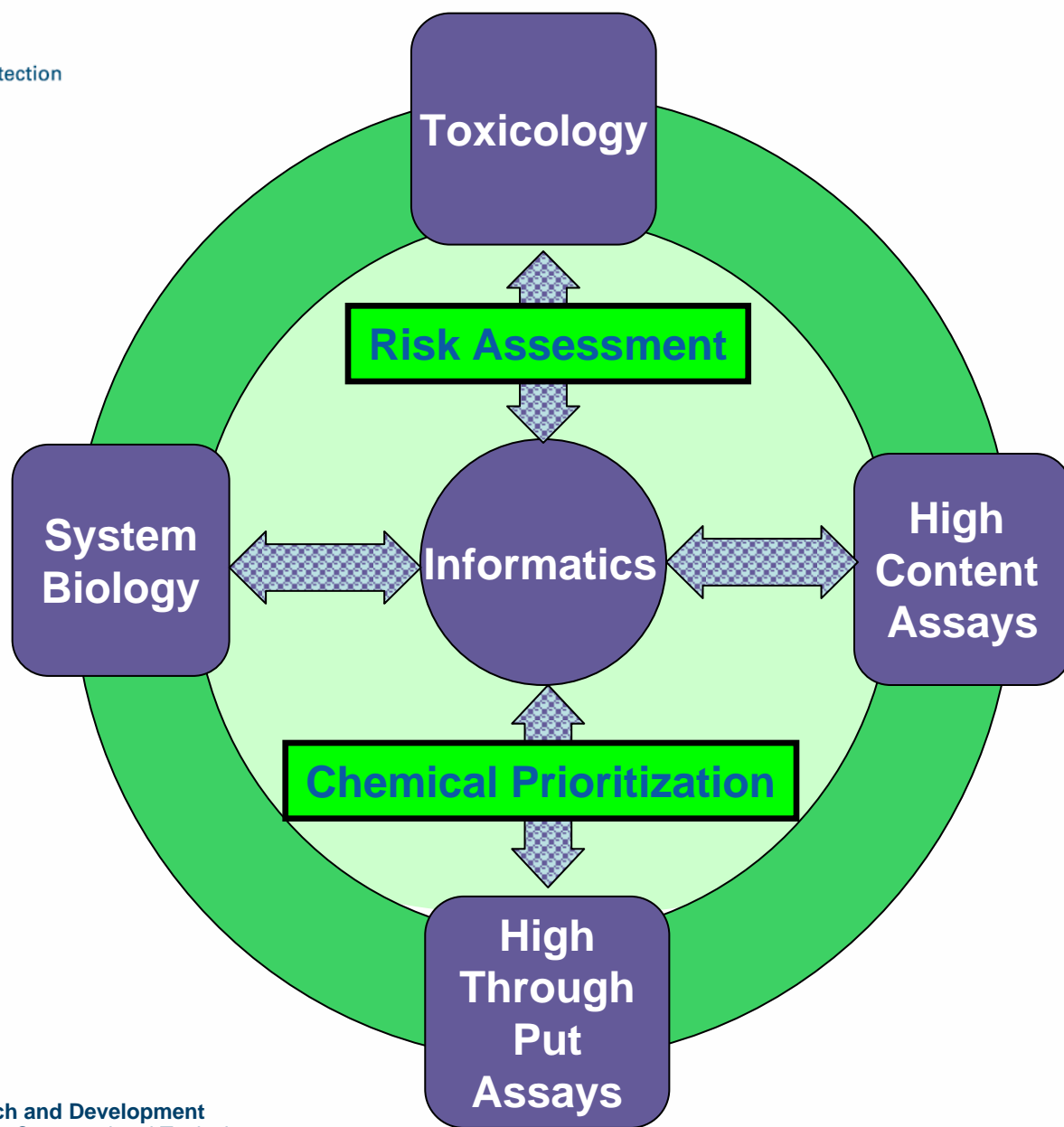


“...to integrate modern computing and information technology with molecular biology to improve Agency prioritization of data requirements and risk assessment of chemicals”

www.epa.gov/ncct

What's It All About

- Digitization
 - Capturing legacy data
 - Unifying dispersed data
- Scale
 - Chemicals
 - Biological space
 - Levels of biological organization
- Quantifying
 - Physiology, biochemical pathways and networks, biology
- Data mining and management

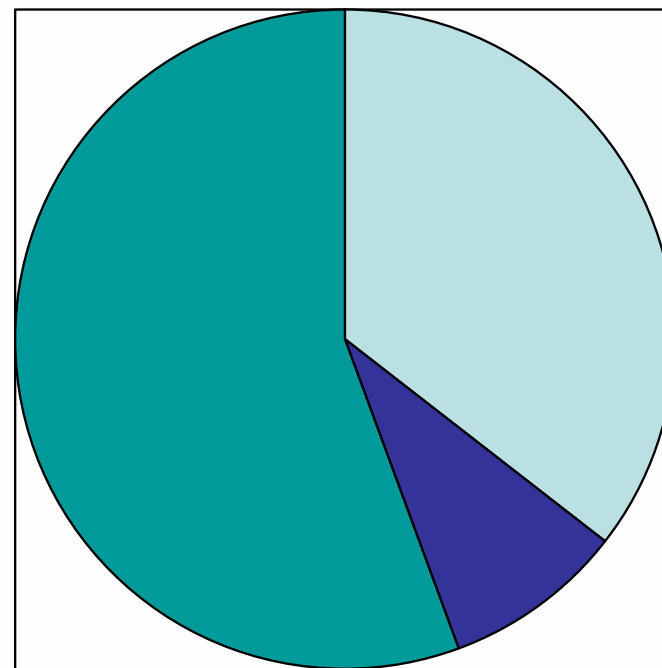


Acknowledgements

- **Local Organizing Committee**
 - Jerry Blancato, NCCT
 - Grace Camblos, IOAA/ORD
 - Karen Dean, NCCT
 - Ken Laws, ORMA
 - Sandy Roberts, NCCT
 - Gene Stroup, NERL
 - Cyndy Yu Robinson, NERL
 - Joe Williams, OARM
- **NCCT Staff**
- **EPA Public Affairs**
 - Ron Slotkin and IPTV crew
- **EPA Volunteers**
- **Scientific Committee**
 - Gary Ankley, NHEERL
 - Jerry Blancato, NCCT
 - Robert Kavlock, NCCT
 - David Mustra, NCER
 - Julian Preston, NHEERL
 - Eric Weber, NERL
- **SAIC Staff**
 - Megan Ball
 - Alina Martin
 - Jo Ann Saville
- **ORD**

Attendee Facts

- **419 Registrants**
 - 160 organizations
 - 40 Universities
 - 15 Countries
 - 3 State Agencies
 - 10 Federal Agencies
 - 8 Foreign Govt Agencies
- **~100 Posters**



 EPA  Other Fed  NonFed

Meeting Info

- **Wear your Conference Name Badge at all times**
- **Agenda**
 - **Afternoon Plenaries**
 - **Monday Evening Posters in the B Atrium (and Food)**
 - **Keynote Presentation at 7:30PM Monday**
 - **Morning Concurrent Sessions**
 - **Continental breakfast beginning at 7:15AM**
 - **Simulcast for Track A in C-113**
 - **Displays**
- **IPTV**
- **Presentations will be posted to the NCCT web**
- **Proceedings**

Miscellaneous (but important) Items

- **Building Entrance and Laptops**
- **Cell Phones, etc.**
- **Evacuation Routes**
- **Designated Smoking Areas (Gazebo by the lake)**
- **Internet Café - C114**
 - **Email Access**
 - **Message Board**
 - **Emergency Contact Line – 919-51-3040**
 - **IPTV feed**

More Important Items

- **Evaluation Forms**
- **Luggage Storage – B149**
- **Speaker's Room – B249**
- **Refreshments – C112 and Auditorium Foyer**
- **Lunch**
- **Bathrooms**
- **Departing Tonight**

EPA RTP

511 Acre Campus (shared with NIEHS)

2nd largest EPA facility (1.2m sq ft)

Longest solar power lighted road

100% Green Power

1800 employees working in 500 labs

Headquarters of two National Laboratories, a National Center and a Program Office

Top three ranking for postdocs



National Center for Environmental Research

Extramural grants in all
research areas

National Exposure Research Laboratory

Human and ecosystem
exposure to pollutants

National Health and Environmental Effects Research Laboratory

Effects of contaminants
on human health and ecosystems

National Center for Computational Toxicology

Merging of computational and
molecular approaches

National Risk Management Research Lab

Preventing and reducing risks to
humans and the environment

National Homeland Security Research Center

Responses to attacks against buildings
and water treatment systems

National Center for Environmental Assessment

Human health and ecological
risk assessment

EPA Science Forum 2008

Innovative Technology

Key to Environmental and Economic Progress

Ronald Reagan Building and International Trade Center
Washington, DC
May 20-22, 2008

The 2008 EPA Science Forum will emphasize the *theme of technology* and its application to a healthy and prosperous environment. Through interactive sessions, panel discussions, exhibits and displays, participants will learn about the role technology plays in environmental protection as well as the role technology plays in the economic success of our nation in the global environment.

A key addition to the 2008 Forum will be the *Environmental Technology Showcase*. The Showcase will bring together researchers, vendors, small businesses, and entrepreneurs to display technologies that protect our environment. Pollutant treatment and monitoring units, modeling systems, mobile remediation units and other environmental technologies will be displayed.

Three Forum themes will guide the session tracks:

1) Technology

Specific sessions will include Environmental Monitoring, Nanotechnology, and Arsenic treatment technologies, among others.

2) Energy, Climate, and the Environment

As a priority area of the EPA Administrator, this track will focus on Agency activities in the area of energy and the environment.

3) Water System Infrastructure and Security

Sessions will overview technological solutions to our Nation's aging infrastructure and advancements in the area of water security.

George M. Gray, Ph.D.

On November 1, 2005, Dr. George Gray was sworn in to serve as the Assistant Administrator for the Office of Research and Development, which is the 1,900-person, \$600 million science and technology arm of the U.S. Environmental Protection Agency (EPA). Dr. Gray was appointed to this position by President George W. Bush and confirmed—by unanimous consent—by the U.S. Senate.

Prior to joining EPA, Dr. Gray was Executive Director of the Harvard Center for Risk Analysis and a Lecturer in Risk Analysis at the Harvard School of Public Health (HSPH). In 16 years at HSPH, his research focused on scientific bases of human health risk assessment and its application to risk policy with a focus on risk/risk tradeoffs in risk management. Dr. Gray taught toxicology and risk assessment to both graduate students and participants in the School's Continuing Professional Education program.

Dr. Gray holds a B.S. degree in Biology from the University of Michigan, and M.S. and Ph.D. degrees in Toxicology from the University of Rochester.

